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ABSTRACT

In multigrade instruction, children of at least a 2-year grade span and diverse ability levels are grouped in a single classroom and share experiences involving intellectual, academic, and social skills. "The Multigrade Classroom" is a seven-book series that reviews current research on multigrade instruction, identifies key issues teachers face in a multigrade setting, and provides a set of resource guides for multigrade teachers. Book 4 presents research-based guidelines for planning, developing, and implementing instructional strategies. A formula is presented for determining the amount of learning time occurring, and a model outlines key dimensions of "effective" learning time. Sample multigrade schedules are presented for grades 1-3 and grades 1-8. Interactions of student effort, motivation, and self-concept are discussed, along with effects of instructional organization and teacher expectations. The advantages and disadvantages of competitive, individualistic, and cooperative goal structures in the classroom are outlined. In the unidimensional classroom, single-task learning structure and evaluation procedures produce a view of academic ability based on competition and curtail learning opportunities for lower-performing students. In contrast, the multidimensional/multiability classroom develops cooperative work norms. Guidelines outline the appropriate use of various task structures. The overall structure of the planned curriculum is briefly discussed, and suggestions are offered for planning curriculum: determining what students know, taking stock of available resources, and evaluating what students have learned. Sample evaluation practices in multigrade classrooms are described. Implications of the standards movement for small, rural multigrade schools are discussed. (Contains 43 references and 8 resources.) (SV)

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A Resource for Small, Rural Schools

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Book 4: Instructional Organization, Curriculum, and Evaluation

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Northwest Regional Educational Laboratory

THE MULTIGRADE CLASSROOM: A RESOURCE HANDBOOK FOR SMALL, RURAL SCHOOLS

Book 4: Instructional Organization, Curriculum, and Evaluation

November 1999

Rural Education Program

Based on the September 1989 publication
of the same title written by Bruce A. Miller

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Thomas, J.W., Strage, A., & Curley, R. (1988). Improving students' self-directed learning: Issues and guidelines. *Elementary School Journal, 88*(3), 313–326. (Reprinted with permission of the University of Chicago.)

Overview

Preface

The preface describes the process used in developing this handbook, including the multigrade teachers who shared their classroom strategies and ideas for improving the usefulness of the handbook.

Introduction

The history of multigrade classroom instruction is presented, along with the background information that describes why multigrade instruction is an important and complex issue for educators.

Book 1: Review of the Research on Multigrade Instruction

In this book, the research on multigrade instruction is reviewed in order to answer two questions: (1) What effect does multigrade instruction have on student performance? and (2) What kind of training is needed in order to teach in a multigrade classroom? Detailed information focusing on organizing and teaching in a multigrade classroom is also presented.

Book 2: Classroom Organization

This book describes strategies for arranging and organizing instructional resources and the physical environment of the classroom. Sample classroom layouts and a "design kit" for organizing your classroom are also included.

Book 3: Classroom Management and Discipline

Establishing clear expectations for student behavior and predictable classroom routines has been shown to improve student performance. In this book, research relating to classroom management and discipline are presented, along with a checklist for planning management routines and discipline procedures.

Book 4: Instructional Organization, Curriculum, and Evaluation

Research-based guidelines for planning, developing, and implementing instructional strategies are presented. This book emphasizes the development of cooperative work norms in the multigrade classroom and explains how to match instruction to the needs of students. An overview of curriculum and evaluation planning concepts is also provided. This book is a close companion piece with book 5: Instructional Delivery and Grouping.

Book 5: Instructional Delivery and Grouping

This book emphasizes that instructional quality and student grouping are key components for success in the multigrade classroom. Instructional methods such as recitation, discussion, and cooperative learning are reviewed. Planning guides and examples are also included where appropriate. Strategies for organizing group learning activities across and within grade levels, especially those that develop interdependence and cooperation among students, are discussed.

Book 6: Self-Directed Learning

Developing skills and strategies in students that allow for a high level of independence and efficiency in learning, either individually or in combination with other students, is essential in the multigrade classroom. Ideas for developing self-direction are presented in this book.

Book 7: Planning and Using Peer Tutoring

This book provides guidelines for developing skills and routines whereby students serve as "teachers" to other students within and across differing grade levels. The research on what makes for effective tutoring in the classroom is also reviewed.

Preface

The development of this handbook began in 1987, when a group of people involved in rural education raised several issues regarding multigrade classroom instruction.

In their discussions, members of the advisory committee for the Northwest Regional Educational Laboratory's (NWREL) Rural Education Program agreed that multigrade teacher training in their respective states was either lacking or wholly inadequate. They also were concerned about the availability of research and training materials to help rural multigrade teachers improve their skills.

As a result of these concerns, the Rural Education Program decided to develop a handbook to assist the multigrade teacher. The handbook evolved in several stages. The first was a comprehensive review, conducted by Dr. Bruce Miller, of the research on multigrade instruction that included articles, books, and research reports from the United States, Canada, Australia, and other countries.

From this review, six topic areas emerged that are considered essential for effective multigrade instruction: classroom organization; classroom management and discipline; instructional organization, curriculum, and evaluation; instructional delivery and grouping; self-directed learning; and planning and using peer tutoring. Dr. Miller developed the handbook around these six instructional areas, and a draft was completed in June 1989, with support from the Office of Educational Research and Improvement (OERI).

The second stage occurred in July 1989, when a conference was held in Ashland, Oregon, with multigrade teachers who were recommended by educational leaders from throughout the Northwest and Pacific Island regions.

During the conference, participants were organized into workgroups, each focusing on one of the topic areas. Their tasks were to review the appropriate handbook chapter for clarity and content, to suggest alternative and/or additional instructional strategies to those presented in the handbook, and to write case descriptions of activities drawn from their classrooms. For example, Joel Anderson from Onion Creek Elementary in Colville, Washington, described how he grouped students for cooperative learning. Darci Shane from Vida, Montana, presented a school handbook she had developed for parents that included a class schedule and other school-related information. (A full list of participants appears at the end of this preface.) The final handbook was completed by Dr. Miller in September 1989.

Based on the growing interest and research on multigrade instruction the handbook was revised and updated in 1999, also with support from OERI. The final version, completed with support from the Institute of International Education (IIE), is now composed of a series of seven stand-alone books.

Book 1: Review of the Research on Multigrade Instruction
Book 2: Classroom Organization
Book 3: Classroom Management and Discipline
Book 4: Instructional Organization, Curriculum, and Evaluation
Book 5: Instructional Delivery and Grouping
Book 6: Self-Directed Learning
Book 7: Planning and Using Peer Tutoring

Purpose and Scope of the Handbook

The handbook has been written to serve three general purposes:

- To provide an overview of current research on multigrade instruction
- To identify key issues teachers face when teaching in a multigrade setting
- To provide a set of resource guides to assist novice and experienced multigrade teachers in improving the quality of instruction

However, because of the complexity of multigrade instruction and the vast amount of research on effective classroom instruction, this handbook can only serve as a starting point for those educators wanting to learn new skills or refine those they already possess.

Each book of the series presents information, strategies, and resources considered important for the multigrade teacher. While all the books are related, they also can stand alone as separate documents. For example, the books on Classroom Organization (Book 2) and Classroom Management and Discipline (Book 3) contain overlapping information. Ideally, these two books are best utilized together. The same is true of the books on Instructional Organization, Curriculum, and Evaluation (Book 4) and Instructional Delivery and Grouping (Book 5). Wherever possible, these relationships have been noted in the appropriate books.

In conclusion, the series of books has been designed to be used as a research-based resource guide for the multigrade teacher. It covers the most important issues the multigrade teacher must address to be effective in meeting the needs of students. Sample schedules, classroom layouts, resource lists, and strategies aimed at improving instruction have been used throughout. It is our hope that the handbook will raise questions, provide answers, and direct the multigrade teacher to resources where answers to other questions can be found.

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Introduction

In contrast to a historical pattern of children developing within an age-varied social system, many children today spend a majority of their time in an age-segregated milieu (Katz, Evangelou, & Hartman, 1990; McClellan, 1994). The results of this pattern of segregation are thought to contribute to a declining social support system and compromised development of children's social and academic skills.

Coleman (1987) suggests the need for a significant institutional and societal response to support functions traditionally filled by the family, such as the development of feelings of belonging and community, emotional and social bonding, and nurturance. Increasingly, the school has been viewed as one of the most effective and efficient contexts to address children's academic, affective, and social needs before these needs reach crisis proportions.

A growing body of research explores the influence of educational contexts on children's development. While interest has focused on the impact of the classroom environment on children's attitudes toward school, cognitive growth, and academic development, less direct attention has been given to the relationship between classroom context (including the structure and content of children's peer relationships) and academic and social development during the elementary years. One approach explored by theoreticians and researchers for encouraging children's academic and social skill development is multigrade instruction.

In multigrade instruction, children of at least a two-year grade span and diverse ability levels are grouped in a single classroom and are encouraged to share experiences involving intellectual, academic, and social skills (Goodlad & Anderson, 1987; Katz et al., 1990; McClellan & Kinsey, 1996). Consistency over time in relationships among teachers, children, and parents is viewed as one of the most significant strengths of the multigrade approach because it encourages greater depth in children's social, academic, and intellectual development. The concept of the classroom as a "family" is encouraged, leading to expansion of the roles of nurturing and commitment on the part of both students and teacher (Feng, 1994; Hallion, 1994; Marshak, 1994).

The potential academic and social implications of the multigrade concept of education are strongly supported by extensive research demonstrating the importance of peers in children's academic and social development, and by studies of reciprocity theory, which demonstrate the positive effect on child academic and social behavior of sustained close relationships between children and caregivers (Kinsey, 1998; Maccoby, 1992).

The adequate implementation of a multigrade approach to education extends beyond simply mixing children of different grades together. A positive working model of a multigrade classroom allows for the development of academic and social skills as the teacher encourages cross-age interactions through tutoring and shared discovery. Social competence develops

for older children out of their roles as teachers and nurturers, and for younger children out of their opportunity to observe and model the behavior of their older classmates (Katz et al., 1990; Ridgway & Lawton, 1969).

The multigrade classroom has traditionally been an important and necessary organizational pattern of education in the United States, notes Miller (1993). Multigrade education dates back to the one-room schools that were the norm in this country until they were phased out in the early part of the 1900s (Cohen, 1989; Miller, 1993). From the mid-1960s through mid-1970s, a number of schools implemented open education, ungraded classrooms, and multigrade groupings. Although some schools continued to refine and develop the multigrade concept, many of these programs disappeared from public schools. With the beginning of the industrial revolution and large-scale urban growth, the ideal of mass public education took root and the practice of graded schools began in earnest.

The graded school system provided a means of organizing and classifying the increased number of urban students of the 1900s. Educators found it easier to manage students by organizing them into age divisions or grades. Other factors, such as the advent of the graded textbook, state-supported education, and the demand for trained teachers, further solidified graded school organization (Miller, 1993; Uphoff & Evans, 1993). Critics of the graded school were quick to emphasize this deficiency. The realization that children's uneven developmental patterns and differing rates of progress are ill-matched to the rigid grade-level system has resulted in a growing interest in and study of the potential benefits of multigrade education in recent years (Miller, 1996). This growing interest is due to a greater focus on the importance of the early years in efforts to restructure the educational system (Anderson, 1993; Cohen, 1989; Stone, S.J., 1995; Willis, 1991) and an awareness of the limitations of graded education.

The multigrade classroom is labor intensive and requires more planning, collaboration, and professional development than the conventional graded classroom (Cushman, 1993; Gaustad, 1992; Miller, 1996). Sufficient planning time must be available to meet the needs of both teacher and students. Insufficient planning, staff development, materials, support, and assessment procedures will have an impact on the success of the multigrade program (Fox, 1997; Miller, 1996; Nye, 1993).

Despite these constraints, there are special advantages to multigrade classrooms. Flexible schedules can be implemented and unique programs developed to meet students' individual and group interests and needs. Combined classrooms also offer ample opportunity for students to become resourceful and independent learners. The multigrade rural classroom is usually less formal than the single-grade urban or suburban classroom. Because of the small class size, friendly relationships based on understanding and respect develop naturally between the students and the teacher. In

this setting, students become well-known by their teacher and a family atmosphere often develops.

However, many teachers, administrators, and parents continue to wonder whether multigrade organization has negative effects on student performance. For most rural educators, multigrade instruction is not an experiment or a new educational trend, but a forceful reality based on economic and geographic necessity. In a society where educational environments are dominated by graded organization, the decision to combine grades is often quite difficult. The Rural Education Program of the Northwest Regional Educational Laboratory receives numerous requests from rural educators with two overriding concerns regarding multigrade classrooms:

- What effect does multigrade instruction have on student performance?
- What kind of preparation or training is needed to be an effective teacher in a multigrade classroom?

This handbook will provide answers to these questions and develop an overview of key issues facing school districts and teachers involved in or contemplating multigrade classrooms.

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Instructional Organization, Curriculum, and Evaluation

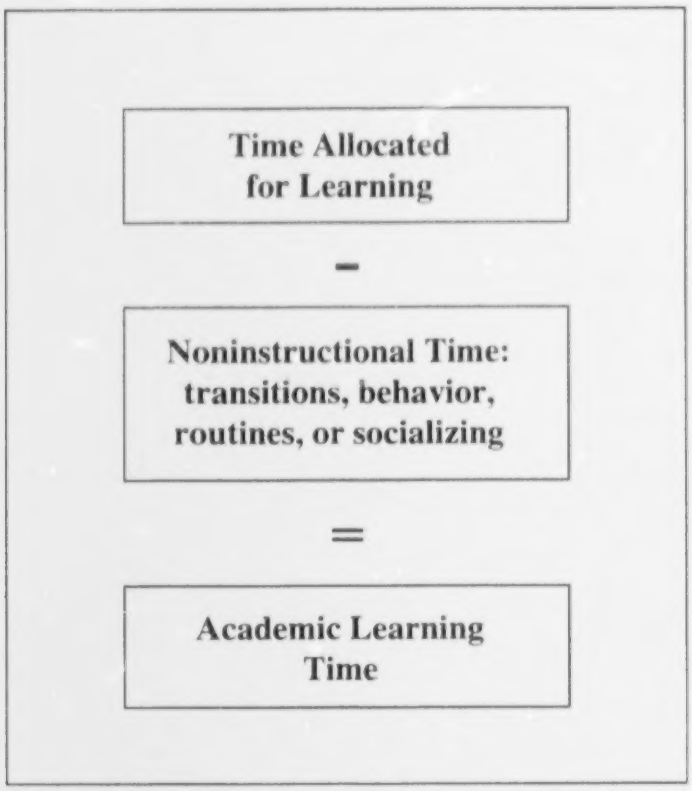
There is greater diversity of achievement and developmental levels in the multigrade classroom than in the typical single-grade classroom. This diversity creates a greater demand on teacher time. Therefore, teachers often find themselves having to rely more on students to work independently and to help one another than the single-grade teacher. This means that students need to be self-directed, motivated, and responsible learners. They need to be able to help one another, set and complete learning goals, follow teacher directions, and stay on task with a minimum of teacher supervision. Observations of effective multigrade classrooms demonstrate that student behaviors such as independence, cooperation, and self-direction are essential for instructional success. Interestingly, a body of research evidence suggests that student self-esteem and achievement are enhanced by classrooms that facilitate the development of these behaviors (Anderson & Pavan, 1993).

Research on instructional organization, curriculum, and evaluation is immense, and no attempt will be made to review the entire body of material. Instead, several models of instructional organization and evaluation and how they affect student performance will be introduced. These models will aid in determining how to organize classroom instruction and evaluation and analyzing the effect of this instruction on students. In addition, issues relating to scheduling instruction and sequencing curriculum will be presented.

Time and Achievement in the Classroom

Research has demonstrated that the time students spend engaged in learning relates to how much they learn. However, the factors that affect learning time are seldom viewed systematically. For example, how often have you sat down and figured how much time is actually spent on instruction and how much time involves transitions, disruptions, and management? Figure 1 provides an illustration of this question. For example, to determine the actual amount of time devoted to math instruction, a teacher would deduct from the math period the time spent for non-instructional activities such as taking roll, doing the lunch count, finding papers, passing out books, and so forth. What remains is the actual math learning time.

FIGURE 1. Formula for Determining Actual Learning Time



Goodlad and his colleagues, in their observation of more than 1,000 classrooms, documented that about 70 percent of class time is spent on instruction. Of the remaining time, about 20 percent is spent on classroom routines, 5 percent on behavior, and 3 percent on social activities (these figures vary with grade level). These findings are not surprising. However, the variation across schools was substantial: 63 percent to 79 percent at the lower elementary and 63 percent to 84 percent at the upper elementary. This means that the amount of learning a student achieves depends a great deal on the school he or she attends. When Goodlad's data are broken down by subject area and type of instructional activity, the picture is quite dismal.

Table 1 provides an overview of the dominant instructional activities occurring at the elementary level, demonstrating that in traditional single-grade classrooms, instructional activities are dominated by seatwork and teacher talk, with little interactive learning (Goodlad & Anderson, 1987).

TABLE 1. Average Observation Data on Student Activities at the Elementary Level

Activity	% of Total Time
Written work	29.35
Listening to explanation/lectures	19.50
Preparation for assignments	12.70
Reading	5.75
Discussion	4.39
Watching demonstrations	1.96

In Table 1, "Reading" represents the amount of time students spent outside traditional "round robin" reading groups. Clearly, students spent very little time practicing reading outside the context of textbook instruction. This was also the case with writing. Students were seldom observed actually engaged in the composing process. Most written work related to completion of workbook and textbook-related assignments. However, the time allocated for the basic skills areas of language arts/English and math was more encouraging. On the average, Goodlad found that 1.59 hours a day were spent on reading and language arts instruction and about one hour a day on math. But the amount of allocated instructional time tells only part of the story. A more important consideration is the actual time students are effectively engaged in learning (i.e., effective learning time).

Karweit (1987) provides an excellent model for understanding effective learning time. Figure 2 depicts effective learning time as a formula incorporating three key instructional elements: learning time (the actual time used for instruction), quality of instruction (teacher effort and the appropriateness of curriculum and method), and student engagement (student effort and motivation).

FIGURE 2. Formula for Determining Effective Learning Time

Learning Time	x	Quality of Instruction	x	Student Engagement	=	Effective Learning Time
60 minutes of math instruction	x	50% of the time instruction is appropriate	x	90% of the time the student is engaged	=	27 minutes effective learning time

In the example presented in Figure 2, it can be seen that this particular student has an effective learning time of approximately 27 minutes (45 percent efficiency). If one thinks about teaching a group of 20 students, ranging in ability across three grade levels, then those students who receive instruction appropriate to their level of ability will spend the most time effectively engaged. However, for those students outside the target range of instruction, minimal desired learning will take place because the quality of instruction and student engagement will be barely appropriate. This is often the case when basic skills are taught to an entire class with a wide range of student ability levels. In such a situation, it is likely that students outside the range of instruction (high- and low-performing students) will not be motivated to learn and may even become disruptive, causing classroom management and discipline problems and further reducing effective learning time. In the multigrade classroom, teachers have successfully dealt with this problem by tailoring assignments to match the unique needs of each student and grouping students where common needs have been identified.

Summary and Implications

Time is a crucial element in student learning, but time alone does not produce learning. In this book, a formula was described for determining the amount of learning time (allocated time minus non-instructional time), and a model was presented for understanding the key dimensions of effective learning time (learning time x instructional quality x student effort).

How can this information be used to improve student learning? There are several planning issues where this information can be beneficial. First, if you want to improve student learning, there are three target areas for affecting change: use of time, quality of instruction, and student effort and motivation. This book focuses on the use of time. Second, using the information on time allocation, you can develop a schedule to ensure that instructional priorities are met. There are three general steps to consider in developing an instructional schedule:

1. Determine how much time is available for instruction per day (amount of time students are in school minus noninstructional activities).

Number of minutes students are in school	360
Minus lunch time	-40
	320
Minus recess and break time	-30
	290
Minus dismissal/room duty time	-15
Available Instructional Minutes	**= 275**

2. Decide on instructional priorities and allocate the available time accordingly. There are several sources to consider in determining priorities: the needs of students, research evidence, governmental departments of education, and school board policy. The example that follows is based on elementary school data taken from more than 600 schools (Goodlad & Anderson, 1987).

Subject	Minutes Weekly (Hours)
English /Language Arts	666 (11.10)
Mathematics	230 (3.83)
Social Studies	120 (2.00)
Science	100 (1.67)
Art, Music, Drama, P.E., etc.	260 (4.33)
Total Time:	**275 (4.58)**

3. Schedule instruction according to the time allocation for each curriculum area. The sample schedules that follow reflect two different approaches to scheduling. Schedule A describes the school day in terms of the time devoted to each grade and for each subject being taught. Schedule B, on the other hand, focuses on activities and uses much larger blocks of time.

It is important to remember that establishing a schedule for a multigrade classroom is a very personal process that reflects the experience and training of the teacher and the unique needs of students. There is no "best" schedule. As members of the multigrade conference group on instructional organization point out, "Teachers have many different styles for establishing a schedule. It's what works best for you (and the students). And remember, it's OK to change as you learn yourself—most great teachers learn from mistakes." The sample schedule that follows will provide you with two models to follow. Change or modify them to fit your own unique situation.

Multigrade Schedule A for Grades 1–3

9:00	Job Chart, Flag Salute, Calendar, Sharing, Questions Box, and Vocabulary
9:20	Sustained Silent Reading (SSR) or Art
9:40	Pass out papers and correct and return assignments
9:50	Math: Total group lesson presentation and assignments given
10:10	Daily Oral Language (DOL)
10:20	English (Monday, Wednesday, and Friday) and Music (Tuesday and Thursday.)
10:40	Recess Language Game
10:50	Morning work (all students review previously taught concepts)
11:00	Computer time begins (a schedule is posted, giving each student 10 minutes)
11:05	Reading Group 1 meets with the teacher. The remaining students work independently on Morning Work or on the computer. If students have problems, they seek help from another student or go on to their next assignment.
11:25	Reading Group 2
11:45	Reading Group 3
12:00	Lunch Language Game
12:45	Story or film
1:00	Spelling: Total group instruction with individual work assignments
1:20	Handwriting: Total group instruction with individual work assignments
1:40	Physical Education with the total group
2:00	Science with the total group (Monday and Wednesday), Social Studies with total group (Tuesday and Thursday), Health with the total group (Friday)
2:30	Dismissal

This schedule was developed by Linda Pelroy, a multigrade teacher from Arock, Oregon. It reflects a schedule structured around specific subject areas.

In this classroom, Pelory meets with different grade levels in small groups for reading, while the remaining students are assigned independent or art tasks. For most other academic subjects, instruction begins with the total group and ends with appropriate individual assignments. An especially important element in this schedule is that students know what will occur during the day.

Multigrade Schedule B for Grades 1–8

	SUBJECT	PURPOSE	ACTIVITIES
9:00 (30)	Introductory activities	Beginning the day together Building up a favorable working tone	Planning the day s work: singing, music, news, health, poetry
9:30 (65)	Learning center of choice	Intellectual and social development	Free choice activities: center of interest in social studies, science, or health
	Developmental period	Practice language skills	Language through discussion and presentation
10:35 (15)		RECESS / BREAK	
10:50 (60)	Language	Formal and informal instruction in language	Instructional reading and reading activities, language activities and language skills, spelling, handwriting, and printing
11:50 (40)		LUNCH	
12:30 (50)	Mathematics	Improvement of math skills	Whole-class, group, or independent work
11:50 (40)		Physical education	
1:40 (15)		RECESS / BREAK	
1:55 (50)	Social studies, science, health, art, drama, language, sport, gardening	Enlarging students experiences in social studies, science, health, or the arts	Topics may be integrated (or not), with emphasis on individual research and discussion (making notes, records, or charts, etc., could be done in center of interest)
2:45 (15)		ROOM DUTY / CLEAN-UP	

(Wellington Department of Education, 1984)

When developing a schedule, keep several points in mind:

1. Schedules need to be displayed clearly so they will be understood by students.
2. Provide sufficient time for working with each maturity level (primary grade, middle grade, etc.)
3. Ensure that curriculum areas of high priority receive adequate time.
4. Organization is simplest if all grades work on the same subject at the same time (at least initially as the teacher learns what best meets the needs of students).
5. In general, a schedule or routine should make the daily and weekly instructional activities as predictable as possible for students.
6. Don't confuse daily schedules with weekly schedules. Be flexible.

Once instructional priorities are determined and scheduled, it is imperative to focus on what Karweit (1987) has described as *instructional quality* (teacher effort and the appropriateness of curriculum and method) and student engagement (student effort and motivation). In the remainder of this book, we will discuss issues surrounding instructional quality and student effort, paying close attention to how student effort, motivation, and self-perceptions of ability are affected by the choices teachers make regarding learning activities and student evaluation. In addition, the subtle ways students are reinforced by the social and academic structure of learning will be discussed.

Instructional Quality and Student Effort

If we had an ideal classroom, one where all students function at the same achievement level and exert a similar amount of effort, it would be easier for the teacher to effectively instruct all students at the same time with similar strategies and materials. However, in the real world, students vary considerably within most single-grade classrooms, and teachers are forced by necessity to deal with different ability levels. In the multigrade environment, differences in ability are even more pronounced, requiring increased planning and organization. The most common strategies for handling differences in ability are whole-class instruction (where differences may often be ignored), ability grouping (where differences often become institutionalized), and pull-out programs (where students are removed from their regular classroom for specific subjects). The research evidence to date suggests that these methods are not necessarily effective, especially for low-achieving students (Banks, 1997).

Student Effort

Student effort relates to the amount of perseverance and commitment a student brings to a learning task. In the typical U.S. school, students begin in the primary grades believing that their performance and ability are a direct result of their effort. One can imagine a kindergartner responding to a task not completed accurately by saying, "That did not work too good, I will try again."

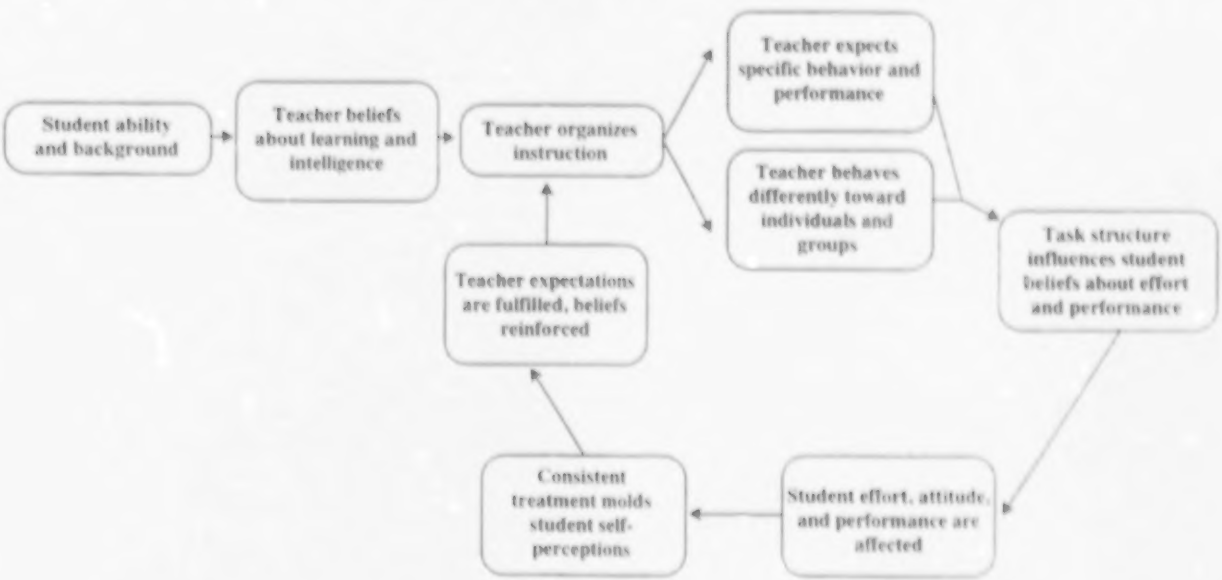
By the time a student reaches the sixth grade, effort, performance, and ability become reversed so that students believe ability is a capacity that affects effort and performance. Ability is viewed as a kind of fixed quantity that determines the degree to which effort can alter performance (Holloway, 1988). In other words, a "smart" student (one with high ability) gets good grades with minimal effort, while the "slow" student (one with low ability) puts out lots of effort with poor results.

For example, a sixth-grade student from a low-performing math group is likely to comment after receiving a poor grade on a test: "Why try? I'm no good at math." The high-performance student is likely to say, "I received a good grade because I studied and learned the material." The low-performing student believes effort (how hard "I" try) will have no effect on performance because he or she does not have the ability (i.e., "no good at math").

Consequently, the low-performing student is not motivated to try. The high-performing student believes that the good grade was deserved because he or she learned the material.

The student who believes that increased effort will have no effect on one's ability to learn will likely be difficult to motivate. Here is where the chief problem lies. The U.S. school as a place for learning helps to develop in students a belief that ability, not effort, is the key to success (Holloway, 1988). Although it may not be a deliberate and premeditated strategy, the type of instructional organization utilized will directly affect student views of themselves as successful learners. Figure 3 provides a model of how the organization of instruction, coupled with the teacher's expectation of students, molds student self-perceptions. Teachers organize instruction based upon their beliefs about student learning. These teacher expectations tend to be fulfilled by students, which in turn reinforces the teacher beliefs about student learning. Thus, teachers' beliefs and understanding of the effects of instructional organization become crucial to the success of learning. Three patterns of instructional organization have been identified by Ames and Ames (1984) as contributing to student perceptions of themselves as learners.

FIGURE 3. The Effects of Instructional Organization and Teacher Expectation on Student Self-Perceptions


Student ability and background
Teacher beliefs about learning and intelligence
Teacher organizes instruction
Teacher expects specific behavior and performance
Teacher behaves differently toward individuals and groups
Task structure influences student beliefs about effort and performance
Teacher expectations are fulfilled, beliefs reinforced
Consistent treatment molds student self-perceptions
Student effort, attitude, and performance are affected

The Goal Structure of Different Types of Instructional Organization

Recent research has focused on the goal structure of different types of instructional organization. Goal structure refers to the way in which instruction is organized to reward student performance. Three distinct methods of instructional organization have been identified and researched by Ames and Ames (1984).

Competitive Goal Structure

In this organizational structure students receive rewards on a competitive basis with their peers. In a typical competitive classroom, students are engaged in whole-class or small- or ability-group instruction. Learning tasks and activities are generally the same, with minor adjustments made for differences in ability. For example, during math instruction, all students are introduced to a concept and then given a seatwork assignment. All students are likely to be working on identical assignments. Evaluation of student performance is a public activity where students have knowledge of how they performed in relation to their peers. Social comparison information is the primary cue for success.

Individualistic Goal Structure

Unlike competitive goal structures, an individualistic structure places a major emphasis on self-improvement. Students are individually rewarded for gains they make over past levels of performance. This type of organization is characterized by students working on individual learning programs tailored to their unique needs. Usually, some form of assessment has been given to each student. The results indicate areas where the student is performing below a given standard. When a student can achieve to the standard, he or she is rewarded with successful completion. In this setting, it is likely that students would be working on different assignments and activities at the same time. Student success is based on individual comparisons with past and present performance, not on a comparison with other students.

Cooperative Goal Structure

Cooperation is the third type of goal structure. It differs from both the competitive and individualistic patterns of organization because it emphasizes a positive interdependence among students for success or reward. Students depend on each other for task completion. Research evidence demonstrates that cooperative strategies enhance student self-concept and motivation (Bouchard, 1991; Pavan, 1992; Stone, 1995). Many teachers use cooperative learning strategies. In art class, the teacher might form the class into small groups in order to complete a group mural that depicts a theme in social studies. Less common are cooperative strategies used in academic areas such as reading and math. However, recent trends toward cooperative learning have generated a number of highly effective "packaged" training programs (see the Resource Section at the end of this book for more information).

In many multigrade classrooms, teachers have learned to rely primarily on individualized and cooperative learning because they are natural outgrowths of the way rural multigrade classrooms are organized. Students learn to cooperate and depend on one another and to work on tasks tailored to their individual needs. The teacher encourages and utilizes cooperation among students in order to extend learning. However, there is also a tendency to rely on competitive structures because they are the dominant educational practice beginning teachers learn.

Multigrade conference participants who worked on instructional organization identified a set of advantages and disadvantages for each goal structure, along with a list of their appropriate instructional uses. Table 2 on the following page presents an overview of their ideas.

TABLE 2. Advantages, Disadvantages, and Applications for Three Classroom Goal Structures

Advantages	Disadvantages	Application
Competitive Goal Structure		
Reflects structure of society	Produces winners and losers	Some sports activities
Familiar to students	Can lower self-esteem	When competing against oneself or an external goal
Familiar to teachers		
Individualistic Goal Structure		
Can improve self-esteem	Increased amount of teacher preparation	When there is a wide range of ability
Students can work at their own level and pace	Students may not know how they stand in relation to others	To maximize student potential
Students compete only against themselves		
Cooperative Goal Structure		
Students learn to cooperate	Must teach cooperative skills	Group projects
Develops feelings of belonging	Some students may not put forth maximum effort	To tie a group together and form bonds
Increases peer interaction and learning	High-performing students may dominate cooperative groups	When there is a wide range of abilities
	Slower students slip by without producing	

Matching Instructional Organization With the Needs of Students

Teachers faced with a classroom of students must learn to balance the needs of students with the time and energy necessary to meet those needs. A body of research on teaching and instructional organization describes practices and strategies that have proven effective in striking this balance. In so doing, this research has also illuminated a sobering reality that many instructional practices believed to be good for students may have undesirable effects on student efforts to learn. As discussed earlier, the shift in student attitudes from a belief that effort makes a difference in learning to a belief that only ability counts is a case in point. The good news is that the multigrade classroom, with its flexible structure and cooperative learning climate, appears to provide an ideal environment for counteracting this damaging tendency. Why the multigrade setting may facilitate student effort will become clearer as we review the effects of instructional organization on students.

In structuring the classroom for instruction, teachers nearly always use some form of grouping (the one exception may be a completely independent study program). Either they teach to the entire class (whole-group instruction), or they configure the class into different types of groups. For what purpose are different forms of group structure used?

Traditionally, grouping has served a management purpose in classrooms. In a similar fashion to the early evolution of the graded school, grouping has served as a means of sorting and organizing students into manageable units for efficiency purposes. An underlying belief is that instruction will be more effective with smaller numbers of students grouped by ability. However, studies of ability grouping have clearly shown that the liabilities for low-achieving students may often be substantial and, except for mathematics, ability grouping does not appear to serve any advantage for students (Slavin, 1988). The only exception may be in those cases where groups are temporarily formed for specific purposes such as peer editing.

Bossert, Barnett, and Filby (1984) developed a model for describing the different patterns of instructional organization commonly found in schools along two continuums: activity structure (students engaged in the same activity versus engagement in different activities) and student work relationships (students working independently versus working interdependently). Table 3 illustrates these two dimensions.

TABLE 3. Typical Classroom Instructional Activities

Work Relationships	Activity Structure: Same ◁ ····· ▷ Different		
Independent	(1) Whole-class worksheet	(2) Separate reading groups	(3) Separate individualized program
Interactive	(4) Whole-class with cooperation	(5) Separate reading groups with cooperative tasks	(6) Common individualized program
Interdependent	(7) Common group projects	(8) Common group projects	(9) Coordinated group task

The following examples (which correspond to the numbers for each classroom activity) illustrate the kinds of tasks students would commonly be engaged in:

1. A common worksheet for a class, where students must work alone and are graded individually
2. Reading groups with different textbooks, where students within each group complete identical assignments individually
3. An individualized program where all students are expected to complete the same assignments independently but at different rates
4. Whole-class recitation or a common worksheet, where students are allowed to interact, but each child completes a separate worksheet
5. Reading groups with different textbooks, where students can interact while completing their separate but identical assignments
6. An individualized program where students may work together on assignments, but each child must produce a separate product
7. Small groups or the entire class work on a common assignment, and individual products are not demanded
8. Different groups within a class do different assignments, and a group product, not individual products, is required
9. Different roles (either within small groups or the entire class) for students that require coordination to produce the joint product

Activity 1 (whole-class worksheets) illustrates a situation where students work independently from one another and are dependent on the teacher for direction, instruction, materials, and reinforcement. Such dependency counters the need for student self-direction and independence required in the multigrade classroom. In addition, students all work on the same task; thus, there is only one dimension for demonstrating competence (i.e., speed and accuracy of worksheet completion). On the other hand, Activity 9 reflects a learning situation where students work in small groups and are highly dependent on one another because they must produce a joint product. Further, students do not all do the same thing, but have an opportunity to demonstrate competence and achieve success in a variety of roles (writer, illustrator, researcher, etc.) and activities.

The Unidimensional Classroom

Traditional classroom organization resembles those dimensions closest to Activities 1 and 2. Classrooms consistently organized to promote Activities 1 and 2 create powerful norms that are quite problematic for many students, especially for those achieving below grade level in reading (Clark, 1996) and those of a minority group status (Caine & Caine, 1991). This form of instructional organization has been characterized as unidimensional or single ability. Alternative instructional organization patterns have been successfully implemented that counteract the negative effects of the single-ability learning environment. Table 4 describes the characteristics and norms associated with these two dimensions.

TABLE 4. Comparison of Teacher and Student Norms in Unidimensional and Multidimensional Classrooms

Classroom Norms	Unidimensional Classroom	Multidimensional Classroom
Belief About Student Ability	Competence and ability are viewed along a single dimension where ability is treated as a fixed entity. Some students possess the ability for high academic performance while other students only have low-performance ability.	There are many different dimensions to ability. Every child can demonstrate competence and ability on some instructional task. Therefore, many different tasks are used.
Teacher Role	Presenter of curriculum content, grader of student accomplishment, manager of resources, and controller of student behavior.	Problem solver, tutor, and facilitator, who promotes all children to achieve learning objectives and to excel across a broad range of competency areas.
Learner Role	Listen, respond, study, and take tests.	Study, participate and discuss, take tests, lead groups, problem solve, and tutor.
Basis for Determining Competence	Reading ability is used as the primary gauge of competence and ability.	Competence and ability are recognized in a variety of areas. Students demonstrate competence in reasoning, art, music, idea generation, cooperative group skills, etc.
Task Structure	A narrow range of activities is used for learning. These activities are whole-group instruction, independent study, seatwork, or small, stable ability groups.	Wide range of different activities for learning where students can demonstrate a variety of competencies. This includes individual, pair, and small-group and large-group activities.
Learner Assessment and Evaluation	Grades are arbitrarily curved and normally distributed, which ranks and labels learners. Evaluation is highly visible and comparative.	Focus is on identifying student performance strengths and needs across a wide variety of instructional areas and tasks. Growth is measured by skill mastery, and evaluation procedures are private and individual.
Effects on Learners	For lower-achieving students there is a negative effect on self-concept, motivation, and work effort. High achievers are reinforced and given greater opportunities to learn. Students also develop a dependence on the teacher.	Student academic self-concept, sense of efficacy (personal control), achievement, and motivation are enhanced. Students learn that everyone has ability and can demonstrate competence in some area. Self-direction and independence are developed.

In the unidimensional classroom, single-task learning structure and evaluation procedures combine to produce a view of academic ability based on student comparison and consensus (i.e., competitive goal structure). This social comparison tends to produce feelings of inferiority, low aspirations, lack of motivation, interpersonal hostility, and competitiveness in low achievers (Marshall & Weinstein, 1984). A process occurs in these competitively structured classrooms that produces "losers" and "winners" and generates a status system that favors students with the highest reading ability. In other words, students who read the best are seen as being of the highest ability; they receive positions of high status in the classroom.

Even when high-status students are placed in different subject-area groups (e.g., math, science, or social studies), they are viewed by fellow group members as having the most ability ("being the smartest"). In mixed-ability groups, higher-status students (usually determined by reading ability) receive the greatest opportunities to learn, regardless of the subject matter. They do this through dominating discussion and by being credited with high-ability status by fellow students (Cohen, 1986; Rosenholtz, 1979). A main reason for this dominance is the place accorded verbal skills in conventional school curriculum. As Rosenholtz points out:

Conventional curriculum taps a very narrow range of skills, concentrating almost solely on reading and verbal skills, such as speaking and writing, yet rarely emphasizing alternative intellectual abilities in art, athletics, creativity, and thinking (p. 78).

As a result, learning opportunities for lower-performing students are significantly curtailed.

The Multidimensional/Multiability Classroom

Elizabeth Cohen (1980) provides an excellent definition of the multi-dimensional/multiability classroom:

A multidimensional/multiability classroom is one in which there are many dimensions of intellectual competence. No individual is likely to be treated highly on all these dimensions. Thus there are no students who are generally expected to be incompetent at new tasks and no students who are generally expected to be superior regardless of the nature of the task. In a multidimensional/multiability classroom, one's skill in reading represents only one important competence; it is not an index of general expectations for success at all classroom tasks (p. 231).

In the multidimensional/multiability classroom, there is a shift in both student and teacher roles that is designed to increase learning opportunities and successes for all students. This is accomplished, in part, by changing and/or expanding instructional strategies to include cooperative work groups where students learn from each other and by increasing the array of areas where students can demonstrate competence. Marshall and Weinstein (1984) identify four components of task or activity structure that enhance student self-perceptions and performance:

1. A variety of tasks occur simultaneously:
    - Variety in the tasks allows students to demonstrate their ability in several areas rather than along a single dimension. Variety allows students to feel competent in some areas.

- Task variety reduces social comparison because evaluation is less visible.

2. A divergence in the process and products of the task:
    - Divergent process is made up of tasks that can be pursued in a variety of ways.
    - Divergent products have no specific right answers; results may be good in different ways. This allows for a variety of student experiences of success. Divergent tasks reduce the basis for comparative evaluation.
3. Differences exist in the sequence and pace of tasks for different individuals:
    - Completion time requirements (pace) can harm the effects of divergent task activities if students are required to complete their tasks at the same time (i.e., those completing first are smarter).
4. Level of task difficulty and content coverage varies:
    - Varying the amount of content and the difficulty of content for different students can communicate comparative evaluation information. (Students perceive that high achievers receive harder work.)
    - Comparison can be reduced if the teacher conveys the belief that everyone is learning, but at different paces and in different ways.
    - Teacher expectations of ability tend to convey a belief that ability level determines the quality and quantity of tasks assigned. When this is made public, students internalize the values and judge their own ability. Low-ability students get easier tasks and more of the "same stuff."

Implications

How can this information on task structure, evaluation, and student status differences be of use to the multigrade classroom teacher? What norms should a multigrade teacher attempt to put in place? What instructional organization appears to be best for multigrade students? And what can the teacher do to implement the most beneficial instructional organization for students?

Clearly, there are no simple answers to these questions. In the multigrade setting, the need to balance teacher time and efficiency with the best interest of students is a continual struggle. The implications of the research information reviewed thus far tends to strongly contradict the dominant organization typically found in many single-grade classrooms. This research tends to support the successful practices reported by many multigrade classroom teachers. In other words, interdependency, cooperation, multiple task activities, individualized learning, and heterogeneous grouping appear to have emerged out of the requirements of coping with multiple grade levels in a single room. This viewpoint was substantiated by the majority of teachers participating in a 1989 multigrade conference held in Ashland, Oregon. Barbara Robinson from Arbon, Idaho, reported that she quickly modified the traditional grade segregated groups in favor of cross-grade grouping because it provided for more instructional flexibility.

However, the norms characteristics of the "unidimensional" learning environment are powerful forces that have shaped the ways in which many teachers organize instruction, even in a multigrade setting. Recent research on effective teaching and instructional organization strategies describe classroom practices that appear to consistently counteract these forces (see Cohen, 1986; Marshall & Weinstein, 1984; Rosenholtz & Simpson, 1984).

Task Structure and the Effective Teacher

Several factors play a role in determining whether an organizational structure (whole-class, small-group, etc.) enhances student learning. Teacher awareness of effective teaching practices and the ability to apply them to different organizational structures can overcome some of the inherent limitations of a particular structure. For example, in whole-class instruction there is a tendency to call on those students who are the brightest (selective attention). This reduces the opportunity to learn for slower and average students. An effective teacher might allow for cooperative student responses (students respond in pairs), request responses from a wide variety of students, give students time to think before they answer (wait time), or have every student write out a response.

Other examples that are especially relevant to the multigrade environment are the characteristics of the learning activities and the grouping structure used to apply them. There are two general activity categories teachers must consider. First are those convergent or closed learning activities with only one correct answer, such as completing a math problem (e.g.; 3 + 4 = __ ; 9 - 4 = __; 24/5 =__), a workbook page in reading (e.g., circle the word that means ___); or engaging in recitation with the teacher on the names of countries in western Europe. Given the range of abilities in the multigrade classroom, it is quite difficult to use closed activities with the entire classroom of students. In addition, closed activities allow for greater evaluative comparison. Students can quickly judge who is right and who is wrong.

Divergent or open-task activities have no single correct answer, but provide students with the opportunity to respond to the task in their own unique way and at their own level. Table 5 provides an overview of nine common instructional structures, along with an example of a language arts task. Writing a letter to a friend, brainstorming a list of words to be used in a story, or describing a favorite story character reflect divergent or open tasks. Using these types of tasks, the multigrade teacher can plan a whole-class instruction for a wide span of ability levels. Divergence also benefits students because it makes comparative evaluation difficult. Since there is no one correct answer, students cannot judge their success by the failure of their neighbor or by how quickly the same answer was achieved. But one should not equate divergent tasks with a lack of standards. In writing, for example, a teacher may establish standards for clarity, format, or length, but still encourage a divergence of thought and expression.

It is important to realize that no task structure is better than another, but that each has a specific use depending on the learning goals, composition of students, and how instruction is organized (cooperative work-groups, individualized instruction, etc.). In fact, effective teachers often use both convergent and divergent structures within the same lesson. In addition, the amount of comparative evaluation likely to occur is indicated in parentheses.

TABLE 5. Appropriateness of Organizational Structures for Student Learning Activities Using Language Arts Goals as Examples

Structure	Convergent (single correct answer)	Divergent (multiple answers)
Whole-class (same assignment/task)	Every student memorizes the same list of adjectives and writes down their definitions. (Strong comparative evaluation; inappropriate with multiple levels.)	Each student writes down 10 descriptive words. These are compiled into a word bank and stories are written.
Whole-class (same	Every student works with a neighbor to memorize the same list of descriptive words. In pairs, students cooperatively write definitions. (Strong comparative evaluation; inappropriate with multiple levels.)	Each student writes down six descriptive words and then trades three words with a neighbor. Students then use each word in a sentence and read to their neighbor.
Ability grouping (w/out cooperation)	Each ability group has a different set of descriptive words to learn. Students work independently, writing the meaning of each word using the dictionary. A worksheet is then completed using the words. (Strong evaluative comparison within group.)	Students find five descriptive words they like from their reading text. A word bank is created. Students independently write a story using words from the word bank.
Ability grouping (w/cooperation)	Students work together to define a set of descriptive words and to complete the teacher worksheet. Each group has a different set of words based on reading levels. (Moderate evaluative comparison within group.)	Students brainstorm a descriptive set of words to be used in a story. Students then begin a "round robin" story using the words from the new word bank.
Separate individualized instruction (same assignments, different pace)	Students complete a set of lessons on descriptive words at their own pace. Student A is working on lesson #2 (defining words) while Student B is on lesson #5 (sentence completion worksheet). (Moderate evaluation based on pace.)	Student A completes lesson #2 (picking descriptive words from a story and using them in a letter to a friend) while Student B completes lesson #5 (writing an advertisement using words from the word bank).

Structure	Convergent (single correct answer)	Divergent (multiple answers)
Common individualized instruction (cooperation w/different products)	Students A and C work together to memorize the descriptive words in lesson #2. They work together to complete a crossword puzzle using their new words. Each turns in a separate completed lesson. (Some evaluative comparison may occur.)	Students A and B work together, editing each other's story. Stories are rewritten.
Common group project (common assignment w/group product)	Students all read the same story and complete a worksheet together on descriptive word definitions.	Three separate groups are required to complete the same assignment. After reading a story without an ending, students write a new ending using the class word bank.
Group product (different groups and assignments w/group products)	Three separate groups complete different sets of worksheets on descriptive words. Group A turns in one set of completed worksheets that include sentence completion, crossword puzzles, and word definitions. (Little comparative evaluation.)	Three separate groups complete different assignments. Group A produces a word bank of adventure story words.
Coordinated (within) group (multiple groups with different roles within groups and common products for each group)	Group A defines a set of 10 words and completes a sentence-completion worksheet and a crossword puzzle using the new words. Roles are assigned: researcher defines words, editor corrects writing errors, poet completes sentence. (Little comparative evaluation.)	Group produces a historical newspaper about the first explorations of North America. Students are assigned different roles: reporter, editor, printer, designer, and artist.

Strategies for Instructional Organization

Effective strategies have been implemented to counteract the negative effects of organizing instruction along a single-ability dimension. Both students and teachers are trained to view ability as multifaceted, not a fixed entity possessed by only a few. In the traditional single-ability classroom, reading is generally viewed as a prerequisite for all other tasks. Few activities are offered where other forms of ability, such as reasoning, decision-making, idea development, and observational skill, can be tested and verified (Rosenholtz & Cohen, 1983). Cohen (1980) identifies three key areas for altering unidimensional classroom structure in order to change student and teacher views of intelligence and ability: increasing learning opportunities, increasing opportunities for success, and changing evaluation practices. The following guidelines, adapted from Cohen, provide a set of practices for planning multiability activities:

Altering Existing Practice

In order to alter existing practice, three important instructional variables must be considered:

I. Opportunities for active academic participation. This can be accomplished by:

   A. Using heterogeneous small groups rather than large groups.

   B. Using guidelines for equal participation of all members of small groups.

   C. Using leadership roles and opportunities for all students in small groups. (Grouping strategies are discussed in greater detail in Book 5: Instructional Delivery and Grouping.)

II. Opportunities for success on academic tasks can be increased for all students by expanding the definition of ability and competence through:

   A. Using academic tasks requiring multiple intellectual abilities.

      1. Try using multimedia activities that accommodate individual learning styles.

      2. Try publicly defining the separate intellectual skills required for completing given tasks such as reasoning, observation, creativity, and so on.

3. Try role playing.

B. Individualizing in conventional academic areas, thereby allowing students with weak skills to work on tasks that are not too easy and not too difficult.

C. Having small groups share skills so that the student with specific skill problems is not prevented from attaining success on tasks.

III. Pay special attention to evaluation procedures that produce damaging evaluative comparisons by:

A. Making infrequent use of marks and grades that allow comparison between individuals on a single dimension.

B. Providing systematic, individualized feedback to each student on how well he or she is attaining objectives and which particular skills require further work.

C. Avoiding public evaluation in recitation.

D. Avoiding standardized tasks that make comparison easy on how well or fast a student is completing the task.

E. When using groupwork, evaluating the group product rather than the contribution of the individual to the group.

Curriculum

Discussion has focused mainly on how different instructional practices affect student performance and self-perceptions of learning. It was found that consistent whole-class instruction and inflexible ability grouping tend to emphasize competition through public comparative evaluation practices. In these types of learning environments, student ability becomes quickly stratified along a single dimension where reading performance generally reflects the primary index of competence. Unless effective teaching practices are implemented to counteract this prevailing trend, students, especially lower-achieving ones, will be negatively affected. On the other hand, individualized programs and cooperative workgroups place major emphasis on personal growth and group performance, thereby increasing student opportunities for demonstrating competence and improved peer relations. The following sections will focus on instructional organization within the context of curriculum, describing the elements and responsibilities of curriculum organization.

The Hidden Curriculum

What has been presented thus far reflects an area of schooling often referred to as the "hidden" or "unstudied" curriculum. This includes such areas as tracking and grouping practices, scheduling and the allocation of time, disciplinary practices, the physical environment, school norms and values, and human relationships. These areas of schooling are hidden because they affect student learning in powerful, but often unintended, ways. We also influence how students learn to relate to each other and the teacher in accomplishing tasks—a social norm that the students may well carry with them throughout their adult lives. As educators, we need to become aware of the hidden curriculum and its effects on students, and consciously modify these practices to enhance student learning.

The remaining curriculum is referred to as the studied or planned curriculum and can be divided into two general areas: essential learning skills and enrichment. The following section will focus on the planned curriculum, providing a brief overview of its structure and basic planning consideration for use in the multigrade classroom.

The Planned Curriculum

The "planned" curriculum can be described as consisting of four key elements: goals, resources, activities, and assessment. Translated into teacher terms, curriculum can be described as a series of questions:

- What do students need to know?
- How will I help them learn it?
- What resources will I use?
- How will I know if the students have learned it?

Table 6 provides an overview of these four questions in terms of curriculum levels and responsibilities generally found in most school districts.

In larger districts and schools, all curriculum levels, from philosophy to assessment, are often clearly defined. The single-grade teacher in a metropolitan school district would likely be required to follow a specified set of goals and learning objectives while using district-adopted materials and tests. Multigrade teachers, on the other hand, may often find themselves in the role of answering these questions with little guidance from a central school district or governmental agency. Even in those cases where the state or a central educational service district provides guidance for the multigrade school, isolation and small size will often reduce the amount of direct service. Even more confounding, curriculum goals, guides, and texts are conventionally organized by "grade level," placing the teacher in the dilemma of how to achieve expected learning goals when the instructional organization may well be inappropriate. Rural multigrade teachers often find themselves operating on their own.

TABLE 6. Overview of Curriculum Levels and Responsibilities

Curriculum Level	Grade Level	Example: Language Arts	Responsibility
District philosophy and purposes	All grades	All graduates will read, write, and speak effectively.	Community and school board
Curriculum	All grades	Writing: The student is able to write out of his own experience, internal as well as external.	Department of education, community, school board, administration, and teachers
Learner	Grade specific	Grades 1 2: The student is able to write a complete sentence. The student can write two or more related sentences.	Department of education, community, school board, administration, and teachers
Resources (guides, texts, handouts, etc.)	Grade specific	Grades 1 2: Curriculum guide, daily writing journal, textbook, and teacher-developed materials.	Administration and teachers
Methods and activities	Grade specific	Grades 1 2: a) Students complete sentences with the teacher. b) Students orally give examples of sentences to the teacher. c) Students write sentences in their writing journals.	Administration and teachers
Assessment	Grade specific	Grades 1 2: Sentence completion, review journals, or oral review.	Department of education, community, school board, administration, and teachers

What Do Students Need To Know?

When a teacher enters a classroom with a new group of students, the teacher's most pressing concern generally revolves around determining what the students already know and what they may need to learn. Ideally, there should be student records that provide an overview of individual student progress. These generally include standardized achievement test results, report cards, and diagnostic testing information for reading and math programs. However, this type of information is not often kept systematically. In addition, if students are returning from a summer vacation, they may have regressed from the previous year's testing.

The best way to determine what students know is through direct assessment:

Talk to students

Conduct an interest survey or conduct interviews. Learn the types of learning students find motivating. Students can also tell what textbooks, learning kits, or instructional materials they worked with the previous year. Students are an often overlooked source of firsthand information.

Observe students working and interacting

Set up learning activities where you can watch how students perform in different subject areas and how they relate with peers. Make note of what you learn.

Use diagnostic procedures

Using grade-level placement information gathered from student records, as well as other information sources (such as colleagues or the community), plan lessons for diagnostic purposes. These might include writing activities, completing a series of math problems, or individually reading to the teacher. Results from these lessons can be used to determine student strengths and needs. Basal textbooks generally include diagnostic materials for placement purposes.

When planning for diagnosis, it is important to set curricular priorities. In other words, what content is essential for all students to master, and in what order?

If the district has established learning goals or adopted a curriculum, then these can be used to guide your decisions. However, if there do not appear to be any established guidelines, then you should use what classroom resources you can find and work with community members to help identify goals they have for their children. There are many curriculum guides developed by state departments of education that may be obtained by contacting them directly or by using ERIC (Educational Resources Information Center) to find curriculum guides and curriculum models. Finally, do not forget to use your own common sense to decide what the students need to learn.

How Will I Help Them Learn?

Determining how you plan to organize your classroom for instruction and the types of activities you plan to use will depend on many factors. What materials are available? What different levels will you be teaching? How many students will you have? Will you have adult help? What strengths do you bring to the classroom? It is also important to ask what methods and strategies are likely to be the most effective.

Many excellent resources have been written on effective teaching. Several of these have been listed in the Resources section at the end of this book. However, it is safe to say that a sound principle to follow in developing instructional activities is that "demonstrating" or "discovering" is better than "telling." Students learn best when they can see and directly experience the desired learning, then follow it by opportunities to practice. This holds true for social as well as academic goals.

What Resources Will I Use?

One of the first tasks upon entering a new classroom is to take stock of what resources are available. The following guidelines provide an outline of ideas for collecting and assessing curriculum materials:

1. Determine what the school has that you can use:
   - Workbooks (old or new)
   - Worksheet masters
   - Textbooks (old or new)
   - Idea/activity books
   - Learning kits
   - Any type of hands-on materials
2. Determine whether there is any discretionary money for buying materials
3. Ask other school personnel what resources may be available
4. Check the local library for books, magazines, and Internet sites that will go with units of study
5. Examine teachers' manuals and note worksheets, games, devices, or other suggested learning activities

6. Collect materials that may be of use (such as magazines, maps, wallpaper books, carpet squares, milk cartons, etc.)

7. Look for simulations, games, and other social/interactive learning activities, especially in social sciences

8. Robin Lovec, a multigrade teacher from Montana, says she finds lots of useful materials at garage sales

Evaluation: How Will I Know If the Students Have Learned?

The last area of curriculum is evaluation. Unlike diagnosis, where the aim is to determine what students need to know, evaluation focuses on ascertaining whether students have learned what they were taught. Assessment should be considered an ongoing activity, occurring at each phase of instruction. When you measure student progress toward achieving a goal, you are also assessing how well you taught or organized instruction. The results of your evaluation should become the basis for altering the course of instruction.

Ideas about evaluation in multigrade classrooms rest on several premises. The first is that if students and teachers remain together for several years, teachers are able to ascertain what students know and do not know well, how they learn, and the best ways to teach them. The second premise is that if students progress through the curriculum less restrained by chronological age, then evaluation should accommodate their current knowledge and their need to grow. Evaluation systems should track students' long-term learning within and across subject areas. This entails multilevel assessments, informal and formal peer modeling by older students, and challenging activities and assessments.

Based on the above premise, three multigrade teachers in Alpharetta, Georgia, identify and describe three significant metaphors that should describe the intent and extent of evaluation in a multigrade classroom: evaluation as a spiral over time, as a web across subject areas, and as a bridge to reach students' perspectives of what they are learning.

Spiral Evaluation

The goal of spiral evaluation is to examine long-term learning over a three-year span. There are two ways in which evaluation "spirals." First, there is an upward spiral toward more conceptual complexity. Second, by revisiting certain aspects of the curriculum each year, students will experience long-term learning. By using spiral evaluation, teachers and students know what has been taught and learned over a three-year time span. There are three years to work toward transfer of concepts, information, and skills to new situations.

Spiral evaluation also has a positive impact on students' sense of security and the development of leadership. "Old" students (seventh- and eighth-graders) can explain a concept from the prior year to "new" students (sixth-graders). For example, older students this fall explained to the incoming sixth-graders the multiple purposes of our Agri-habitat and demonstrated how to work in the gardens. The old ones felt comfortable sharing what they had learned. They were mentoring at the same time that they were reviewing and determining what they knew. One of our purposes for evaluation is to help students become "lead-learners."

Webbed Evaluation

Multigrade, multiyear, interrelated curriculum also means that learning should be evaluated across the curriculum. Teachers should conceive of their curriculum and the evaluation of student learning as a "web" that crosses the hall from classroom to classroom. The web unites teachers in a common effort to secure student understanding in many contexts.

For example, writing skills are evaluated across the curriculum in every subject area. Spelling words in language arts are taken from other subjects, and examples of sentences for learning new writing skills are taken from social studies texts. Math word problems frequently relate to information from social studies and science.

Bridged Evaluation

The bridge represents a means of understanding students' perspectives; we are trying to evaluate what students believe they are learning, and how they are learning, over the three-year program. Bridges to student understandings are built on day-to-day interaction. Bridges are also erected through the systematic collection and analysis of research data.

For example, one set of our data involves student performance on standardized tests. We analyze national Iowa Test of Basic Skills scores and state Curriculum-Based Assessment of Writing Skills, both general and within certain domains of writing. We also survey students' attitudes toward school, other students, and the curriculum; hold large- and small-group discussions with students to gain a picture of what the students value and whether they support our program's goals; and collect, analyze, and respond to student journals. Together, we analyze data and write up what we have learned, and then determine how to change what we do.

Learning from assessment requires the willingness and the courage to examine your own effectiveness. It especially matters to a multigrade team that they know how to spiral, web, and bridge assessment practices. Students' academic shortcomings cannot be blamed on some other anonymous teacher; for three years multigrade teachers are responsible.

Montana multigrade teachers attending an Elementary and Secondary Education Act (ESEA) workshop on new state mathematics and reading standards submitted the following ideas related to student assessment. They suggest that teachers consider many different strategies and issues, among them:

- The commitment to the idea of natural assessment, which means that multigrade teachers attempt to integrate learning, teaching, and evaluating into daily activities.
- Opportunities for informal and formal evaluation for children to express themselves.
- Use of student self-evaluation and self-direction. Students set personal academic goals, guide teachers in developing curricula, help to direct the course of thematic studies, engage in research, and decide what individual work to do during their investigations, communications, and math workshops. Students develop into independent, self-motivated learners as they discover how to make appropriate choices for themselves and assume ownership of their classroom.
- Use of evaluation strategies that look at the environment, the teacher, and the materials, as well as the child.
- A look at the concept of uniformity versus diversity. Do the materials (books, basal, etc.) enhance uniformity or diversity? Is there uniformity or diversity among the children in the classroom? Is the teacher becoming more diverse in her own awareness and thinking, or more uniform?

Pam Cunningham, a one-room multigrade schoolhouse teacher at Sand Springs Elementary in Montana, shared some of the techniques she uses to evaluate her class. Her students range in age and ability and span three grade levels. Ultimately she believes that children need to express themselves orally, as well as have opportunities to learn from others within the classroom.

Talking Journal

To begin the day the children assemble with us on the rug. Children and adults take turns telling the group something of personal importance. Sometimes children share special articles brought from home. Active listening is an important part of Talking Journal time. Students are encouraged to comment and ask questions.

Evaluation of Talking Journal

We take note of the frequency and nature of the children's talk as well as their comments and questions. Some behaviors we watch for are: clear, audible voice; eagerness to share; ability to speak without a prop; interest in others' presentations; quality of questions and comments; and ability to actively listen.

Morning Message

A message to the children is written on large chart paper and presented to the combined classes. Five or six words are left partially blank with only the beginning sound or blend given. We read the message aloud, deciding together which words will make sense in the blanks. The message often suggests the focus of the day's activities. As we discuss the content of the message, we note word meanings and usage, conventions of grammar, and other stylistic features of the writing. Next, students volunteer to spell the missing words. As we spell we discuss the sound/symbol correspondence of standard spelling. We compare "sound spellings" to the conventional spellings of words. As we review the message, we invite children to point out interesting things they have noticed. The students' observations lead to discussions on a wide variety of literacy concepts: word patterns, rhymes, homophones, vowel combinations, blends, mechanical features of punctuation and capitalization, and so forth. A copy of the message is sent home each day for homework and to provide information about daily school activities to parents.

Evaluation of Morning Message

As one of the teachers is leading the Morning Message discussion, the other is noting on a checklist which children are actively listening and contributing to the chart discussion. We document on sticky notes when individual children suggest words for the message, provide sound spellings, supply conventional spellings, or notice significant things on the message. The children take turns being the student observer. Each day the student observer is also writing notable occurrences on sticky notes. At the end of the message discussion, both the teacher and student observers comment on the discoveries or behaviors of several of the children. Each day the sticky notes are filed in the class record book. We encourage parents to interact with their children while children are doing their homework. Through the course of the year, parents, children, and teachers can evaluate reading and spelling development through the homework.

Choice Time

The daily Choice Time is a valued part of our program. As the children enter our classrooms in the morning, they sign up for an activity to do later at Choice Time. There are a wide variety of choices; some of them are teacher ideas and others have been suggested by the children. Some examples of choices include: blocks, puzzles, games, reading, writing, drawing, painting, constructions, clay, math tubs, dramatic play in the Little Room, and so forth. The Choice Time period is structured so that children may work and play either independently or in groups. It offers children opportunities to make decisions, to work on relationships, and to learn on their own. Choice Time also gives children the freedom to acquire skills, to attain concepts, and to practice in academic areas of their choice. Once every two weeks each student is scheduled to meet with the teacher for a goal-setting conference during Choice Time.

Evaluation of Choice Time

We find that children learn best when they have input into their learning. Choice Time has proven to be the setting for abundant growth and widespread learning among our students. As we observe the children during Choice Time, we note both social and academic development. Over time, we note the quality and degree of self-direction, creativity, decisionmaking skills, problem-solving ability, cooperation, and responsibility for materials that each student is exhibiting. We also note individual gains in reading, writing, math, and other content areas.

Investigations Workshop

We offer Investigations Workshops three times a week. During this 45-minute period the students work on math and science through theme-related activities. The themes studied are based on a three-year cycle of the district's science curriculum for the kindergarten, first, and second grades. The workshops include large-group, small-group, and individual projects. Sometimes the teachers determine the groupings; other times the students choose the group or activity in which they wish to participate. Hands-on activities that demand that the students problem solve, experiment, and do research are a major component of the Investigations Workshops. Each child has an Investigations Log in which she or he records significant learnings.

Evaluation of Investigations Workshop

The teachers observe the problem-solving and research strategies used by each student during the Investigations Workshop. We recognize and record incidences of scientific curiosity. We also note student choices of collaborative groupings and how each group conducts its investigations. Student-selected research projects may be included in the students' portfolios. The student Investigations Log serves as a record of individual learning.

Literature Groups

Literature Groups are groups of five to seven students and one adult who meet together to enjoy and discuss a book of their choice. The teachers select examples of quality literature, as many titles as there are groups. On sign-up day the teachers give short book talks to introduce the students to the upcoming Literature Group selections. The teachers make up the Literature Groups according to the students' choices. We study a variety of genres throughout the year. The make-up of the groups changes, with each new series of books. The Literature Groups meet for two, 45-minute sessions each week. Groups meet for four weeks, for a total of eight sessions. During the sessions the groups work on listening and speaking goals, as well as a variety of literacy activities. Some possible Literature Group activities are: reading and comparing different versions of the story; listening to related books; partner reading; studying character, plot, setting, and style; vocabulary study; and retellings. Finally, the group works together to plan a culminating project to share with the other Literature Groups.

Evaluation of Literature Groups

Leaders evaluate reading and listening comprehension, as well as the use of reading and writing strategies, during Literature Group activities. During discussions, the leaders also observe the quality and frequency of students' participation. Collaboration and cooperation in the group are also noted. Group members also evaluate themselves on their participation.

Math

The students are grouped developmentally for math class three days a week. Large-group lessons, small-group lessons, and individual work are all components of these classes. This developmental grouping allows the teachers to group children at similar stages for instruction in basic math concepts. The remaining two days a week are spent in Math Workshop. The students are offered a choice of problem-solving situations to work on. As much as possible these problems will be related to real-life situations. For example, the children might be asked to decide how much pumpkin seed we need of each variety for next year's planting. They will then compute the needed garden space and design how the pumpkin patch could be laid out. Problems developed by students are also used. The workshop time gives the students the opportunity to problem solve in multiage collaborative groups, as well as on an individual basis. The work in the math classes and the Math Workshop is based on the district's math curriculum.

Evaluation of Math

Teachers observe problem-solving strategies as the children are working. We watch for successful collaborations. We note the degree of understanding of mathematical concepts. Through math goal-setting conferences, we help children to recognize their strengths and to set further learning goals. Students take the district's math assessment test for concepts they have studied; the results are recorded on each child's math card.

Communications Workshop

Communications Workshop occurs every afternoon. It is a large block of time in which we are all engaged in a variety of literacy activities. We focus on the fundamentals of literacy: reading, writing, listening, and speaking. Students and teachers make choices within these areas during Communications Workshop. Students work on the personal literacy goals that they developed for themselves during goal-setting conferences with the teachers. The structure of the workshop follows:

We begin the workshop with a read-aloud of a picture book or a continuing chapter book. Students have input into the book selection. Quiet reading is next. Students and adults choose books, magazines, newspapers, and other materials to read independently. After the quiet reading time, the reading segment of Communications Workshop continues with a variety of activities. Some students enjoy partner reading. Friends pair up to share books they have been reading. Sharing includes showing pictures, inventing a story to go with the pictures, talking about the book, or reading the book aloud. Some students listen to tape recordings of books at the listening center at this time. Others continue to read independently or to conduct research on self-chosen topics. A teacher-directed mini-lesson follows the

reading time. The mini-lessons focus on reading and writing skills and strategies and on procedural elements of the workshop. After a break for gym, music, art, library, or computer instruction, the Communications Workshop resumes with quiet writing in daybooks. All children and adults write at this time; we choose topics of personal importance to write about in our daybooks. After quiet writing, students engage in a variety of writing pursuits as they continue the writing segment of Communications Workshop. Some writing possibilities include: personal writing (letters, notes, poems, songs, stories, etc.), collaborative writing, individual research, editing, illustrating their published works, and book responses. Several days a week we will end Communications Workshop with a sharing time. At this time, students and adults may read their writing or tell about a book they have enjoyed during Workshop. Listeners offer their comments and questions.

Evaluation of Communications Workshop

Every two weeks, regularly scheduled conferences during Choice Time help the students set appropriate literacy goals. We encourage them to balance their goals so that they are working on both skills and strategies in reading and writing. During Communications Workshop we work individually with children to monitor their progress on the literacy goals they have chosen. From time to time during the workshop, we question the children: What are your reading goals? What writing goals are you working on? Show me how you worked on your goals in your daybook today. How did you help yourself to be a better reader today? During the reading segment of the workshop we discuss books with children and listen to them read, noting their use of reading strategies. We evaluate strengths and weaknesses in word attack and comprehension, and we help the students in applying reading strategies. We assist them in choosing appropriate books. We evaluate as we talk with students about their writing, noting their attention to their goals, their facility with sound spelling and conventional spelling, their vocabulary growth, and the development of stylistic features in their writing. Most of our time during Communications Workshop is spent in helping individual students in specific areas of their literacy development.

End of the Day Circle

The last 10 minutes of our school day are reserved for guided reflection on our work of that day. The question for the day is posted on the board all day for the children to reflect on. At End of the Day Circle, a child reads the question, and those who wish to respond are called on. Some possibilities for questions are: What do you value about your work today? What did you do today to help yourself become a better reader? A better writer? A better mathematician? What did you do today to help someone else? What will you tell your family about what you did in school today? The children's comments are written down by the teacher and later transcribed in the End of the Day Question Book. This book is kept on a low shelf where the children can get it to read over their own and others' responses.

The teachers note the frequency with which students choose to respond to the questions, as well as the type of question that elicits the response.

The children's abilities to express their thoughts clearly and audibly are also noted. The End of the Day Question Book offers a permanent record of the children's reflections.

Evaluation of End of the Day Circle

As we learn from our students, our ideas about evaluation change. We try to assess our students' strengths and to show each student what she or he can do and how to build on that knowledge. We believe that evaluation is not for comparison; evaluation is qualitative, not quantitative. The purpose of evaluation is to value the child. Our progress report is an attempt to inform parents of their child's growth in a nonthreatening, informal manner. However, we feel that the best way to share our knowledge of children is to talk with their parents. To this end, we hold formal conferences with parents two or three times a year. We also encourage parents to frequently visit the classroom or call us to discuss their children's educational growth. We hope to encourage parents to see their children's strengths and to work as partners with us to provide their children with the best learning environment possible.

Summary

In the multigrade class, different abilities from different ages are expected. It is very important to know the curriculum expectation for each age group and how to determine if a student is working at "grade level." Teachers must know the curriculum guides well for assessment. Curriculum outcomes should be of prime importance when deciding what to teach and, therefore, what and how we intend to assess.

Implications

Multigrade groupings provide an opportunity to assess a child over years instead of months in their life. Teachers meet the child's family again and again and watch the student grow. Teachers work hard on behavior problems and see long-term results instead of hearing how a student pulled the same "stunts" on next year's teacher. These are the advantages of following a multilevel group and measuring growth.

What about teachers who have a split or multigrade classroom as a temporary measure? This still allows an opportunity to see students as individuals and to value their differences. Students have a chance to work with another ability group for lessons and to learn from older students. Older students can model and teach younger ones. As part of the evaluation process, the teacher gets to overhear and observe the student's knowledge in action, the teacher knows that students have truly learned it because they see them use their knowledge and pass it on. Younger students or novices become "experts" and have a true sense of what will be expected of them in the future. Evaluation in the multigrade classroom reports how individuals are progressing over years and indicates where they fit on the learning continuum.

The Standards Movement in Small, Rural Multigrade Schools

The beginning of the standards movement can be traced back to the 1983 publication of *A Nation at Risk* by the National Commission on Excellence in Education (Marzano & Kendall, 1996). Harshly critical of the public school system, the report focused America's attention on education like no single event since the Soviet Union launched Sputnik in 1957. In turn, education become a greater priority among state and national leaders, who until then had paid limited attention to the topic (Toch, 1991).

Since the early days of the standards movement, substantial effort has gone into developing standards at the local, state, and national levels. Evidence of this work can be seen in the voluminous standards documents that have been generated. Although the standards movement has considerable support among policymakers and the public, small-school teachers raise important questions about the implementation of standards. Their concerns can be grouped under four broad headings: (1) resource and equity issues; (2) relationship to previous failed reforms; (3) objectionable content in the standards; and (4) volume of the materials (Marzano & Kendall, 1996).

A common complaint among educators is that developing and implementing standards places a substantial drain on school resources. In rural areas, small-school faculties are already overburdened, and developing standards seems like an insurmountable task. Nor do small schools typically have the resources to hire outside consultants to guide their standards-writing process. Thus, resources given to standards writing and implementation must be taken from other areas, which may affect some types of students more than others. Such reallocation of resources raises serious equity questions.

Another criticism is that the standards movement is simply another way of packaging previously failed reform efforts. Some see similarities between the standards movement and the efficiency movement of the 1900s (Eisner, 1995), as well as the behavioral objectives movement of the 1960s. This perception leads to resistance among educators who see the standards movement as just another so-called innovation that will eventually go away. A third concern lies in what some consider to be objectionable content in the standards. For example, some teachers have argued that history standards portray a biased, unflattering view of U.S. history and neglect traditional American figures.

The fourth concern regards the volume of material to be covered by the standards. Reformers initially envisioned a relatively small number of standards that teachers could use to guide their instruction. Unfortunately, the professional organizations that developed the standards undertook the task with great zeal. The result is that there is no possible way that teachers, and in particular multigrade teachers, could teach the vast number of standards that professional organizations have outlined and still meet the varied needs of students in their classrooms.

Despite similar concerns, multigrade teachers at the ESEA workshop felt that the multigrade classroom context was conducive to standards implementation and improved student achievement. Consistency over time in relationships among teachers, children, and parents was viewed as one of the most significant strengths of the multigrade approach because it encourages greater depth in children's social, academic, and intellectual development. Second, the concept of the classroom as a "family" leads to the expansion of the roles of nurturing and commitment to excellence on the part of the students and teachers. Cross-age interactions through tutoring and the repeated exposure to educational content also result in improved understanding and mastery. Social competence develops for older children out of their roles as teachers and nurturers, and for younger children out of their opportunity to observe and model the behavior of their older classmates.

Summary

Multigrade teachers have stated that high standards are good, and have been coveted by most educators. However, the quest for them in the present atmosphere is generating powerful policies and practices that often seem to be too simple, too centralized, and generally unquestioned. To succeed, multigrade teachers state that the movement for higher standards must engage and be informed by local schools and communities; it must recognize the competence and concern of the majority of teachers; and it must do justice, not harm, to children of poverty.

References

Ames, C., & Ames, R. (1984). Goal structures and motivation. *Elementary School Journal, 85*(1), 39–52.

Anderson, R.H. (1993). The return of the nongraded classroom. *Principal, 72*(3), 9–12.

Anderson, R.H., & Pavan, B.N. (1993). *Nongradedness: Helping it to happen.* Lancaster, PA: Technomic.

Banks, J.C. (1997). *Student success and self-image in a multi-age classroom.* Edmonds,WA: CATS Publications. Retrieved September 20, 2000, from the World Wide Web: www.chimacum.wednet.edu/multiage/stsuccess.html

Bossert, S.T., Barnett, B.G., & Filby, N.N. (1984). Grouping and instructional organization. In P.L. Peterson, L.C. Wilkinson, & M. Hallinan (Eds.), *The social context of instruction: Group organization and group processes* (pp. 39–51). New York, NY: Academic Press. (ERIC Document Reproduction Service No. ED 268 075)

Bouchard, L.L. (1991). Mixed aged grouping for gifted students. *Gifted Child Today, 14*(5), 30–35.

Caine, R.N., & Caine, G. (1991). *Making connections: Teaching and the human brain.* Alexandria, VA: Association for Supervision and Curriculum Development.

Clark, A. (1996). Special-needs children and mixed-age grouping. *MAGnet Newsletter on Mixed-Age Grouping in Preschool and Elementary Settings, 5*(1), 3–4. Retrieved September 20, 2000, from the World Wide Web: www.ericeece.org/pubs/mag/magfal96.html#b

Cohen, D.L. (1989, December 6). First stirrings of a new trend: Multi-age classrooms gain favor. *Education Week, 9*(14), 1, 13–14.

Cohen, E.G. (1980, September). *A multi-ability approach to the integrated classroom.* Paper presented at the annual meeting of the American Psychological Association, Montreal, Canada. (ERIC Document Reproduction Service No. ED 196 989)

Cohen, E.G. (1986). *Designing groupwork: Strategies for the heterogeneous classroom.* New York, NY: Teachers College Press.

Coleman, J.S. (1987). Families and schools. *Educational Researcher, 16*(6), 32–38.

Cushman, K. (1993). *The case for mixed-age grouping.* Harvard, MA: Author.

Eisner, E.W. (1995). Standards for American schools: Help or hindrance? *Phi Delta Kappan, 76*(10), 758–764.

Feng, J. (1994). *Issues and trends in early childhood education.* Unpublished manuscript. (ERIC Document Reproduction Service No. ED 372 841)

Fox, M. (1997, April). *Strategies for developing multi-age classrooms.* Paper presented at the annual convention of the National Association of Elementary School Principals Association, San Antonio, TX.

Gaustad, J. (1992). Nongraded education: Mixed-age, integrated, and developmentally appropriate education for primary children [Special issue]. *OSSC Bulletin, 35*(7).

Goodlad, J.I., & Anderson, R.H. (1987). *The nongraded elementary school* (Rev. ed.). New York, NY: Teachers College Press.

Hallion, A.M. (1994, March). *Strategies for developing multi-age classrooms.* Paper presented at the annual convention of the National Association of Elementary School Principals Association, Orlando, FL.

Holloway, S.D. (1988). Concepts of ability and effort in Japan and the United States. *Review of Educational Research, 58*(3), 327–345.

Karweit, N. (1987). Diversity, equity, and classroom processes. In M.T. Hallinan (Ed.), *Social organization of schools: New conceptualizations of the learning process* (pp. 71–102). New York, NY: Plenum Press.

Katz, L., Evangelou, D., & Hartman, J.A. (1990). *The case for mixed-age grouping in early education.* Washington, DC: National Association for the Education of Young Children.

Kinsey, S. (1998). *Observations of student and teacher behaviors in the multi-age classroom.* Unpublished manuscript.

Maccoby, E.E. (1992). The role of parents in the socialization of children: An historical overview. *Developmental Psychology, 28*(6), 1006–1017.

Marshak, D. (1994, March). *From teachers' perspectives: The social and psychological benefits of multiage elementary classrooms.* Paper presented at the annual conference "Emerging Images of Learning: World Perspectives for the New Millennium," Chicago, IL.

Marshall, H., & Weinstein, R. (1984). *Ecology of student achievement expectations: Final report.* (ERIC Reproduction Service No. ED 257 820)

Marzano, R.J., & Kendall, J.S. (1996). *A comprehensive guide to designing standards-based districts, schools, and classrooms.* Alexandria, VA: Association for Supervision and Curriculum Development.

McClellan, D., & Kinsey, S. (1996). Mixed-age grouping helps children develop social skills and a sense of belonging. *The MAGnet Newsletter on Mixed-Age Grouping in Preschool and Elementary Settings, 5*(1), 1–3. Retrieved May 8, 2000 from the World Wide Web: www.ericeece.org/pubs/mag/magfal96.html#a

McClellan, D.E. (1994). Multiage grouping: Implications for education. In P. Chase & J. Doan (Eds.), *Full circle: A new look at multiage education* (pp. 147–166). Portsmouth, NH: Heinemann.

Miller, B.A. (1993). A review of the quantitative research on multigrade instruction. In D. Sumner (Ed.), *Multiage classrooms: The ungrading of America's schools. The multiage resource book* (pp. 65–83). Peterborough, NH: Society for Developmental Education.

Miller, B.A. (1996). A basic understanding of multiage grouping. *School Administrator, 53*(1), 12–17.

Nye, B. (1993). Some questions and answers about multiage grouping. *ERS Spectrum, 11*(3), 38–45.

Pavan, B.N. (1992, April). *School effectiveness and nongraded schools.* Paper presented to the annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 346 608)

Ridgway, L., & Lawton, I. (1969). *Family grouping in the primary school* (2nd ed.). New York, NY: Agathon Press.

Rosenholtz, S.J. (1979). The classroom equalizer. *Teacher, 97*(1), 78–79.

Rosenholtz, S.J., & Cohen, E.G. (1983). Back to basics and the desegregated school. *Elementary School Journal, 83*(5), 515–527.

Rosenholtz, S., & Simpson, C. (1984). The formation of ability conceptions: Developmental trend or social construction? *Review of Educational Research, 54*(1), 31–63.

Slavin, R.E. (1988). Synthesis of research on grouping in elementary and secondary schools. *Educational Leadership, 46*(1), 67–77.

Stone, S.J. (1995). *The primary multiage classroom:* Changing schools for children. Unpublished manuscript.

Toch, T. (1991). *In the name of excellence: The struggle to reform the nation's schools, why it's failing, and what should be done.* New York, NY: Oxford University Press.

Uphoff, J.K., & Evans, D.A. (1993). The country school comes to town: A case study of multiage grouping and teaching. In D. Sumner (Ed.), *Multiage classrooms: The ungrading of America's schools. The multiage resource book* (pp. 36–38). Peterborough, NH: Society for Developmental Education.

Wellington Department of Education. (1984). *The rural school.* Wellington, New Zealand: E.C. Keating, Government Printer.

Willis, S. (1991). Breaking down grade barriers: Interest on nongraded classrooms on the raise. *ASCD update, 33*(3), 4.

Resources

Cohen, E.G. (1986). *Designing groupwork: Strategies for the heterogeneous classroom.* New York, NY: Teachers College Press.

This book provides detailed strategies for starting groupwork in your classroom and describes the research supporting cooperative workgroups. The book is written in a direct, clear style that makes it easy to follow and useful to the classroom teacher.

Available from: Teachers College Press
Columbia University
New York, NY 10027

Cohen, E.G. (1980). *Teacher application pamphlet: Designing change for the classroom. Final report. Status equalization project: Changing expectations in the integrated classroom.* Stanford, CA: Stanford University, Center for Educational Research. (ERIC Document Reproduction Service No. ED 211 501)

This study provides a theoretical rationale for using small groups, directions on how to train children in small-group behavior and specific activities to be used during training, and information on adapting existing curriculum for small-group work.

Available from: ERIC
3900 Wheeler Avenue
Alexandria, VA 22304-6409

Cotton, K. (1995). *Effective schooling practices: A research synthesis.* Portland, OR: Northwest Regional Educational Laboratory.

This research synthesis describes characteristics and practices identified by research as associated with improvements in student performance. Findings are cited within three sections, each focused on one level of organization: the classroom, the school, and the district. Groups of practices derived from the research have been organized into practice clusters (such as "Teachers Use a Preplanned Curriculum to Guide Instruction") and then into cluster groupings (such as "Instruction" and "Assessment").

Available from: Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, OR 97204

Johnson, D., Johnson, R.T., Holubec, E.J., & Roy, P. (1984). *Circles of learning: Cooperation in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.

The authors present the underlying concepts regarding cooperative learning. Steps for implementing cooperation in your classroom and the research supporting it are also presented.

Available from: Interaction Book Company
125 N. West Street
Edina, MN 09874

Kagan, S. (1990). *Cooperative learning: Resources for teachers*. San Juan Capistrano, CA: Resources for Teachers.

This book provides a detailed guide for implementing the structural approach to cooperative learning. It includes a guide to resources in cooperative learning and an overview of cooperative learning research. There is a wealth of concrete strategies for teachers to use.

Available from: Resources for Teachers
27134 Paseo Espada #202
San Juan Capistrano, CA 92675

Novick, R. (1996). *Developmentally appropriate and culturally responsive education: Theory in practice*. Portland, OR: Northwest Regional Educational Laboratory.

Available from: Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, OR 97204

Slavin, R.E. (1986). *Using student team learning* (3rd ed.). Baltimore, MD: Johns Hopkins University, Center for Research on Elementary and Middle Schools.

This teacher's manual describes a set of practical instructional techniques that involve students in cooperative activities built around the learning of school subjects. These are techniques developed and researched at Johns Hopkins University, plus related methods developed elsewhere.

Available from: The Johns Hopkins Team Learning Project
Center for Research on Elementary and Middle Schools
Johns Hopkins University
3505 North Charles Street
Baltimore, MD 21218

Yates, R. (updated February 2000). Resources for multiage classrooms. Retrieved September 27, 2000, from the World Wide Web: www.chimacum.wednet.edu/multiage/

This Web site is dedicated to helping teachers and administrators interested in multiage/multigrade education find and gather relevant resources such as curriculum evaluation samples. Here you will also find materials that reflect some of the ways multiage programs can be set up. There are many, many more possibilities.

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